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Records of *Beltrania rhombica* and *Didymobotryum rigidum* from China

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Abstract—*Beltrania rhombica* and *Didymobotryum rigidum* are described and illustrated, based on Chinese collections on decaying twigs of unidentified broadleaf plants. *Beltrania rhombica* represents a new record for mainland China, and *D. rigidum* a new record for Guangdong Province.

Key words—anamorphic fungi, taxonomy

Introduction

Beltrania Penz. is typified by *B. rhombica*, which was described from *Citrus limonum* [= *Citrus limon*] in Italy (Penzig 1882). This genus was described with distinguishing characters such as setae with radially lobed basal cells, conidiophores with separating cells, and biconic conidia with a hyaline transverse band and apical tubular appendage. *Didymobotryum* Sacc., which was established with *Periconia rigida* Berk. & Broome [≡ *D. rigidum*] as the type species, was mainly characterized by synnematous conidiophores and monotretic conidiogenous cells that produce unbranched acropetal chains of 1-septate conidia (Saccardo 1886).

Tropical and subtropical forest ecosystems offer particularly suitable habitats for saprobic microfungi, among which the anamorphic are the most abundant and diverse (e.g., Ma 2016; Ma et al. 2016; Xia et al. 2015a,b, 2016a,b). During a mycological survey of conidial fungi occurring on decaying plant material from Henan and Guangdong provinces, China, specimens of *Beltrania rhombica* and

Didymobotryum rigidum were collected on decaying twigs. The specimens are described and illustrated below and are deposited in the Herbarium of Mycology, Jilin Agricultural University, Changchun, China (HMJAU).

Beltrania rhombica Penz., Michelia 2(8): 474. 1882. Fig. 1

Conidiophores macronematous, mononematous, arising in groups from the terminal cells of the immersed mycelium, erect, ascending, straight or

Fig. 1. *Beltrania rhombica* (HMJAU H6692). Conidiophores, conidiogenous cells, and conidia.

flexuous, unbranched, thick-walled, 4–8-septate, pale brown to mid brown, geniculate, conidial scars visible after secession of the conidia, 90–170 × 3–5 μm. Conidiogenous cells polyblastic, integrated, terminal, becoming lateral, determinate, cylindrical. Conidia solitary, dry, acrogenous or acropleurogenus, simple, biconic, smooth, slightly truncate at the base, with a rostrum at the apex, subhyaline to pale brown, with a hyaline median pale transverse band, 22–28 × 7.5–10 μm (rostrum exclude), rostrum 4.5–7 μm long.

Specimen examined: **CHINA, Henan Province**, Jigong Mountain, on decaying twigs of an unidentified broadleaf tree, 2 Nov. 2016, J.W. Xia (HMJAU H6692).

Comments—*Beltrania rhombica* is easily recognizable by its biconic conidia with a rostrum. Our specimen fits well with the original description of *B. rhombica* by Penzig (1882) except for the lack of setae. This species is reported for the first time from mainland China.

Didymobotryum rigidum (Berk. & Broome) Sacc., Syll. Fung. 4: 627. 1886. Fig. 2

Conidiomata synnematal, unbranched, erect, with brown to dark brown stalks, consisting of compact aggregation of parallel conidiophores, terminating in brown fertile heads, ≤1000 μm long and 35–45 μm diam. in the middle, ≤110 μm diam. at the base, and 260 μm diam. at the apex. Conidiophores macronematous, erect, unbranched, septate, pale brown to brown, 2–4 μm diam. Conidiogenous cells monotretic, integrated, terminal, thick-walled, smooth, brown. Conidial secession schizolytic. Conidia solitary, dry, ellipsoidal, 1-euseptate, smooth, brown, 11–12.5 × 4.5–6 μm; septa 1.5–2.5 μm thick, darkly pigmented.

Specimen examined: **CHINA, Guangdong Province**, Baiyun Mountain, on decaying twigs of an unidentified broadleaf tree, 6 Jun. 2015, J.W. Xia (HMJAU H6383).

Comments—*Didymobotryum rigidum* is easily recognizable by its synnematous conidiophores and monotretic conidiogenous cells that produce catenate ellipsoidal conidia. This species has previously been reported from Sri Lanka, Thailand, Vietnam, China (Hong Kong), Japan, and Cuba (Berkeley & Broome 1873; Ellis 1971; Jones et al. 2004; Kobayashi 2007; Lu et al. 2000; Mercado Sierra et al. 1997; Minter et al. 2001; Saccardo 1886; Zhuang 2001); it is reported here for the first time from Guangdong Province.

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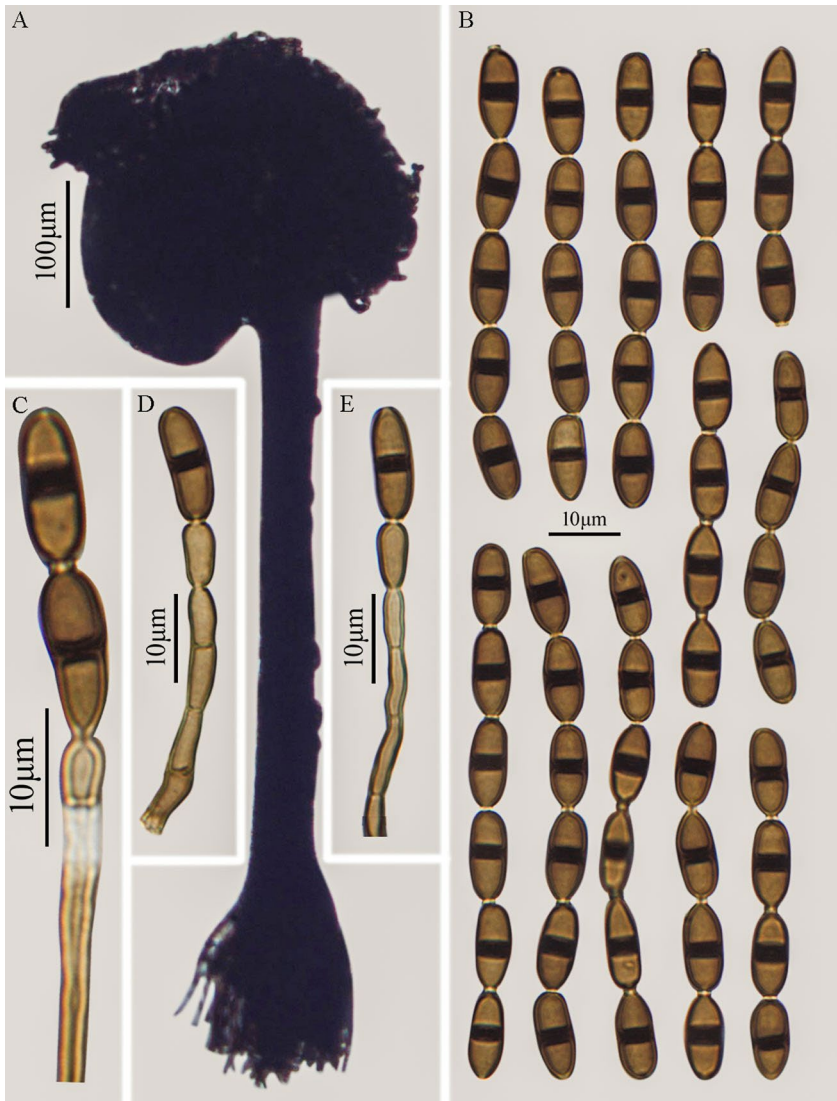

Fig. 2. *Didymobotryum rigidum* (HMJAU H6383).
A. Synnema; B. Conidia; C–E. Conidiophores, conidiogenous cells, and conidia.

and Arthur Decock through the Index Fungorum and MycoBank websites. Dr. Lorelei Norvell's editorial review and Dr. Shaun Pennycook's nomenclature review are greatly appreciated.

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